In the Abstract

~~The present invention provides a~~ A Ti-containing ferritic stainless steel sheet and a manufacturing method ~~thereof, the~~ thereof include stainless ~~steel~~ steels being formed while a refining load is decreased and having a low yield strength which exhibits superior workability.

~~Specifically, the~~ The Ti-containing ferritic stainless steel sheet contains on mass percent basis: 0.01% or less of C; 0.5% or less of Si; 0.3% or less of Mn; 0.01% to 0.04% of P; 0.01% or less of S; 8% to 30% of Cr; 1.0% or less of Al; 0.05% to 0.5% of Ti; 0.04% or less of N, $8 \leq Ti/(C+N) \leq 30$ being satisfied; and the balance being substantially Fe and incidental impurities, wherein a grain size number of ferrite grain is 6.0 or more, and an average diameter Dp of precipitation diameters, each being [(a long axis length of a Ti base precipitate + a short axis length thereof)/2], of the Ti base precipitates in the steel sheet is in the range of from 0.05 μm to 1.0 μm. ~~In addition, the method for manufacturing a Ti-containing ferritic stainless steel sheet includes the steps of: hot-rolling a slab having the composition described above, and performing recrystallization annealing of the hot-rolled steel sheet at a temperature of (a precipitation nose temperature of Ti base precipitates ± 50□) so that an average diameter Dp of precipitation diameters, each being [(a long axis length of a Ti base precipitate + a short axis length thereof)/2], of the Ti base precipitates is in the range of from 0.05 μm to 1.0 μm and so that a grain size number of ferrite grain is 6.0 or more. The method for manufacturing a Ti-containing ferritic stainless steel sheet, further includes the steps of: performing cold-rolling; and subsequently performing final annealing of the cold-rolled steel sheet at a temperature less than (a precipitation nose temperature of Ti base precipitates + 100□) so that the average diameter Dp of precipitation diameters, each being [(a long axis length of a Ti base precipitate + a short axis length thereof)/2], of the Ti base precipitates is in the range of from 0.05~~

~~μm to 1.0 μm and so that the grain size number of ferrite grain is 6.0 or more.~~